Yvann LE FAY

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Education

École Normale Supérieure Paris-Saclay - Institut Polytechnique de Paris Orsay, France
M.Sc. *in Statistics and Machine Learning, MVA* *2023 - 2024*

- Optimal transport, learning for time series, probabilistic graphical models, convex optimization, learning & generation by sampling, bayesian machine learning

ENSAE Paris - Institut Polytechnique de Paris Palaiseau, France
M.Eng. *in Statistics* *2020 - 2024*

- Sequential Monte Carlo methods, asymptotic and non-asymptotic statistics, econometrics, stochastic calculus

Paris-Saclay University Orsay, France
B.Sc. *in Mathematics* *2020 - 2021*

Lycée Henri-IV Paris, France
Program in math, computer science and physics leading to nationwide entrance examinations to the Grandes Écoles *2018 - 2020*

Experience

Center for research in Economics and Statistics (CREST) Palaiseau, France
Research internship, supervised by Nicolas Chopin *May 2024 - Expected Sep. 2024*

Aalto University - Simo Särkkä's group Espoo, Finland
Research internship, supervised by Adrien Corenflos and Pr. Simo Särkkä *May 2023 - Sep. 2023*

- Proposed the first probabilistic numerics solver for Stochastic Differential Equations (SDEs) in the additive-noise setting using Gaussian filtering methods. Preprint version: abs/2401.03338. Published version: Submitted to Bayesian Analysis. Presented at BAYSM 2023 (ISBA).
- Companion-code of the article (JAX): github.com/ylefay/bayesianSDEsolver.

INRIA - MIND Palaiseau, France
Research internship, supervised by Demian Wassermann *Jan. 2023 - Mar. 2023*

- Worked on variational inference methods.

Lombard Odier Investment Managers' - Multi-Asset Geneva, Switzerland
Off-cycle internship as a quantitative researcher, supervised by Serge Tabachnik *Jun. 2022 - Nov. 2022*

- Contributed to a proprietary scalable and highly modular framework for backtesting cross-asset trading strategies. Researched, implemented and backtested strategies (ARPs, Vol, Momentum). Implemented data mining procedures and modern regression methods. Contributed to a statistics and reporting library. Received a renewal offer.

Société Générale (CDN, Retail Banking) Paris, France
Internship in data science and risk analysis, supervised by Pierre Bouché *Jun. 2021 - Aug. 2021*

- Backtested a credit decision tool, detected outliers in audit logs. Conducted a study on omnichannel customer behaviours as part of the fusion between Société Générale and Crédit du Nord.

Awards & Grants

French-Finnish PhD Cotutelle scholarship - the Magnus Ehrnrooth Foundation
france.fi/wp-content/uploads/2023/10/Magnus-Ehrnrooth-FI-FR-PhD-Cotutelle.pdf *2024*

- Received a doctoral grant of 24 000 euros, plus 2 000 euros for travel expenses, per year. The Magnus Ehrnrooth Foundation promotes scientific collaboration between France and Finland by financing international PhD cotutelles.

Accessit in regional math olympiads
euler.ac-versailles.fr/IMG/pdf/olympiades_equipe_2016_palmares.pdf *2016*

Hall of fame - Microsoft Security Response Center
msrc.microsoft.com/update-guide/acknowledgement/archive *2015*

- Three times acknowledged for having reported security vulnerabilities.

Programming Skills

Languages: Python, Ocaml, Wolfram Language, SQL
Technical stack: Git, Linux, Bloomberg, Excel
Libraries and others: JAX, PySpark, Dask, blp

Others

Languages: French, English
Citizenships: French, Swiss